

DENON

Hi-Fi AM-FM Stereo Receiver

SERVICE MANUAL

MODEL DRA-585RD

AM-FM STEREO RECEIVER

For Europe
And U.K. Models

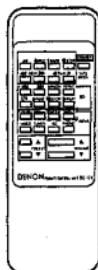
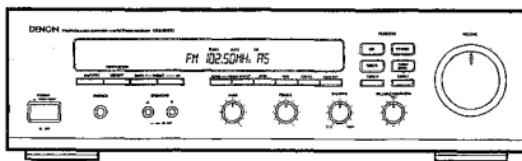
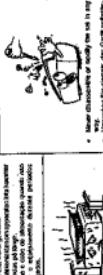
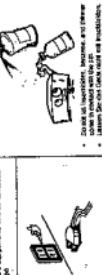


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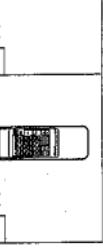
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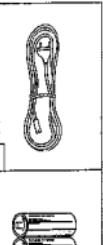
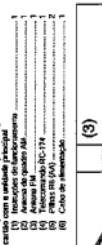
NOTE ON USE / HINWEISE ZUM GEBRÄUCH / OBSERVATIONS RELATIVES À L'UTILISATION
NOTE SUU / ISO / NOTAS SOBRE EL USO / ALVOREN TE GEBRUIKEN / OBSERVERA



Please check the following items are included with the manuscript in the correct order:



1.1. **Introducción de operación:** *Conocer la unidad principal.*

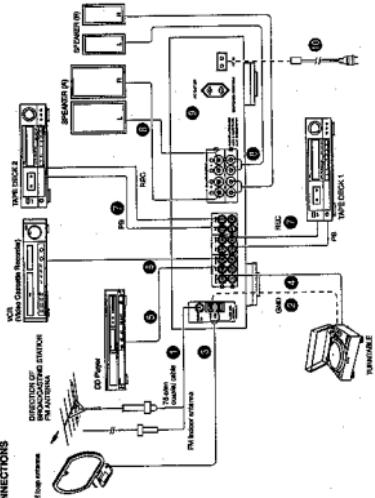


Technisch-ökologische Gestalt des Technischen Versuchs (zu Tief- und und Tiefenwasseruntersuchungen) ist der Test und Testverarbeitung

SPLASH CONTENT

SPEAKER CONNECTION
Connect polarity (+/-) and left and right channels [L, R]. Connect the speaker pairs to the SPEAKER terminals A or B on the back.

SINCE 1945



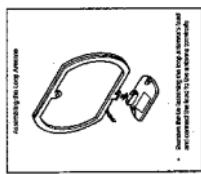
111

| Preparing the card | |
|-------------------------------|-------------------------------|
| 1. Plot of the speech. | 2. Test the words. |
| <input type="checkbox"/> Plot | <input type="checkbox"/> Test |

ANTENNA INSTALLATION

Connecting the front speaker terminals

2. Insert the card and ignite by turning clockwise.



- Disconnect the antenna from a stereo's tuner and connect the lead to the above contacts.
- Do not connect this FM antenna to an antenna terminal.
- Even if an antenna terminal is used, do not disconnect the FM antenna.
- Make sure that the antenna lead terminates on the metal parts of the panel.

10

- Do not connect two FM transducers simultaneously.
- Even if unidirectional AM transducers is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

10

- Do not connect two FM transducers simultaneously.
- Even if unidirectional AM transducers is used, do not disconnect the AM loop antenna.
- Make sure AM loop antenna lead terminals do not touch metal parts of the panel.

YEAR PANEL (Budget 10 pages to meet Section 7)

100

Prosthetic Glottis
This is a set of lips with a
thin throat produced by
the speech act. It is such a set
of lips and a check to
them to be able to speak.
Then turn the power on a
seconds, the set will open.

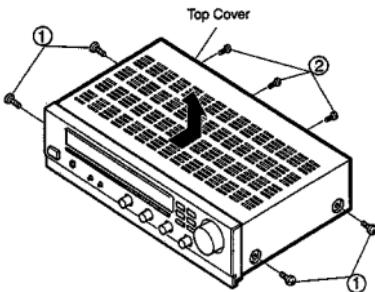
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DISASSEMBLY

(To reassemble reverse disassembly)

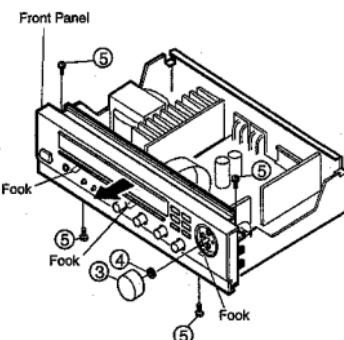
1. Top Cover

- (1) Remove 4 screws ①.
- (2) Remove 3 screws ②.



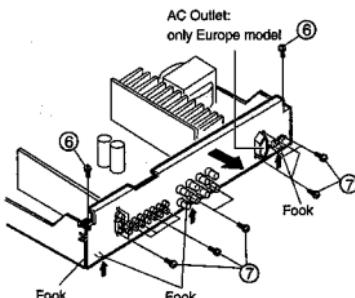
2. Front Panel

- (1) Pull out Volume knob ③.
- (2) Remove nut ④.
- (3) Remove 4 screws ⑤ and undo hooks at 3 places.

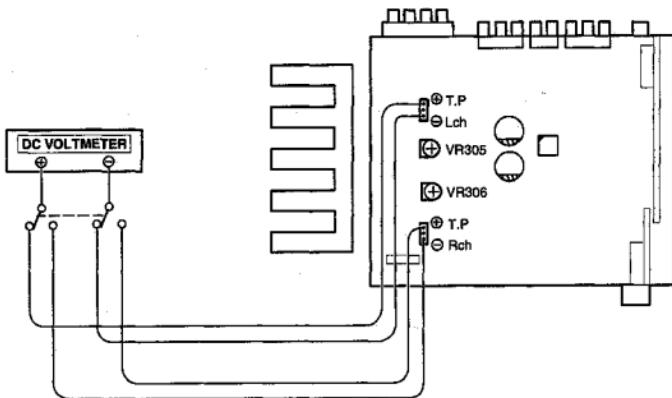


3. Rear Panel

- (1) Remove 2 screws ⑥ and 12 fixing screws ⑦.
- (2) Remove hooks at 3 places in arrow direction (↓).



METHOD OF ADJUSTMENTS



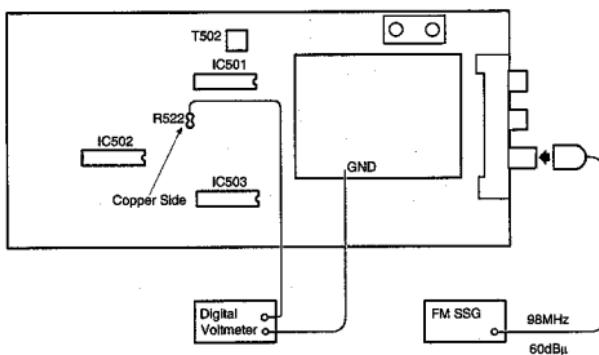
IDLING CURRENT

- Set controls as follows.

| | |
|--|-----------------------------|
| POWER Switch | → off (■) |
| VOLUME Control | → 0 (min.) |
| SPEAKERS | → off (■) |
| Temperature | → 15°C ~ 30°C (59°F ~ 86°F) |
| VR305 and VR306 of the 1U-2817 (Main Unit) | → MIN. (Q) |
- Connect DC Voltmeter to the T.P. Lch and T.P. Rch of the 1U-2817.
- Turn the Power Switch on and rotate VR305 clockwise so that the DC Voltmeter reads 3 mV ± 0.2 mV DC at the T.P. Lch. Follow the same procedure to VR306 for T.P. Rch.
- Warm up for three minutes, then readjust VR305 and VR306 so that the DC Voltmeter reads 3 mV ± 0.5 mV DC.
- Warm up for 10 minutes, then readjust VR 305 and VR306 so that the DC Voltmeter reads 2.7 mV ± 0.5 mV DC.

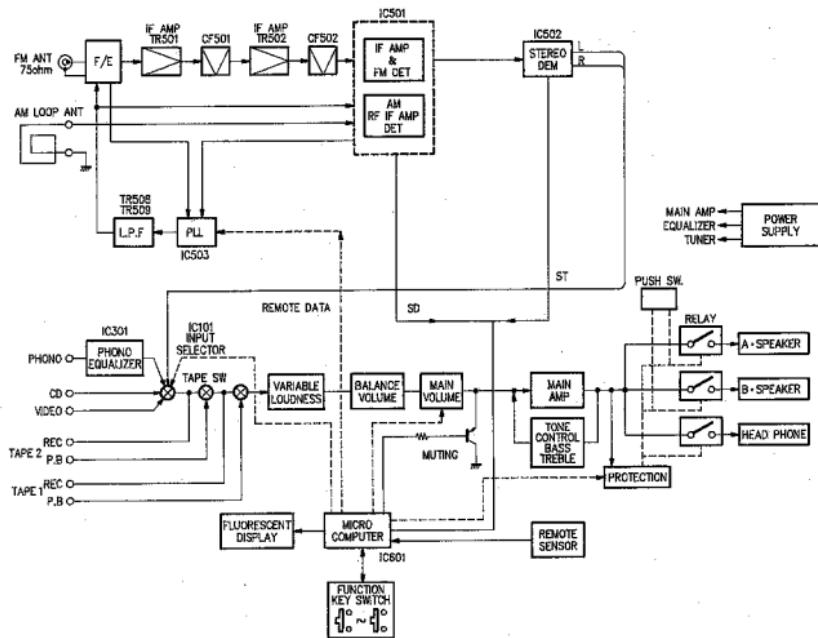
CONNECTION DIAGRAM OF MEASURING INSTRUMENTS

● FM SECTION



Adjust T502, Potential difference across R522 should be within 50mV.

BLOCK/LEVEL DIAGRAM



| Ref. No. | Part No. | Part Name | Remarks | Ref. No. | Part No. | Part Name | Remarks |
|------------------|--------------|-----------------------------|-------------------|----------|--------------|--------------------------|-------------------|
| R401 | 247 0013 900 | Carbon chip 220kohm 1/10W | RM73B-224J | C331,332 | 254 4260 946 | Electrolytic 1μF/50V | CE04W1H010M |
| R402 | 247 0009 985 | Carbon chip 10kohm 1/10W | RM73B-103J | C333,334 | 254 4260 922 | Electrolytic 0.33μF/50V | CE04W1H033M |
| R403 | 247 0009 901 | Carbon chip 4.7kohm 1/10W | RM73B-472J | C335,336 | 257 0004 961 | Ceramic chip 100pF/50V | CC73SL1H101J |
| R404,405 | 247 0007 945 | Carbon chip 1kohm 1/10W | RM73B-102J | C337,338 | 257 0002 992 | Ceramic chip 20pF/50V | CC73SL1H202J |
| R406 | 247 0009 985 | Carbon chip 10kohm 1/10W | RM73B-103J | C338,340 | 254 4254 925 | Electrolytic 33μF/716V | CE04W1C330M |
| R407 | 247 0010 958 | Carbon chip 20kohm 1/10W | RM73B-203J | C341,342 | 257 0004 961 | Ceramic chip 100pF/50V | CC73SL1H101J |
| R408 | 247 0009 985 | Carbon chip 10kohm 1/10W | RM73B-103J | C353,354 | | Metallized 0.1μF/50V | |
| R409 | 247 0007 945 | Carbon chip 1kohm 1/10W | RM73B-102J | C355,356 | 255 1265 978 | Film 0.022F/50V | CC93M1H223J(B) |
| R410 | 247 0009 901 | Carbon chip 4.7kohm 1/10W | RM73B-472J | C357 | 254 4260 948 | Electrolytic 1mF/50V | CE04W1H010M |
| △R411 | 244 2051 987 | Metal oxide film 4.7ohm 1W | RS14B3A47J1NBS(S) | C358 | 253 0830 963 | Ceramic 0.01μF/25V | CK451-E103K |
| | 241 2377 947 | Carbon 100ohm 1/4W | RD14B221J1NBS | C359,360 | 254 4260 948 | Electrolytic 1μF/50V | CE04W1H010M |
| △R415 | 244 2387 908 | Carbon 1ohm 1W | RD14B221J1NBS | C401 | 254 4258 905 | Electrolytic 4.7μF/35V | CE04W1V4R7M |
| △R451,452 | 244 2052 902 | Metal oxide film 2.7ohm 1W | RS14B3A47J1NBS(S) | C402 | 257 0012 966 | Ceramic chip 0.01μF/50V | CK73F1H103Z |
| △R453 | 244 2051 990 | Metal oxide film 4.7ohm 1W | RS14B3A47J1NBS(S) | C403 | 254 4260 948 | Electrolytic 1μF/50V | CE04W1H010M |
| R460 | 247 0011 944 | Carbon chip 47kohm 1/10W | RM73B-473J | C404,405 | 253 1181 904 | Ceramic 0.01μF/50V | CK451-E103Z |
| △R465,466 | 244 2052 902 | Metal oxide film 2.7ohm 1W | RS14B3A47J1NBS(S) | C406 | 259 0007 702 | For back up 8200μF | S8 CAP=822-C |
| △R467 | 244 2050 991 | Metal oxide film 8.2ohm 1W | RS14B3A47J1NBS(S) | C407 | 254 4254 909 | Electrolytic 10μF/16V | CE04W1C100M |
| R468 | 244 2052 957 | Metal oxide film 5.6kohm 1W | RS14B3A56J1NBS(S) | C408 | 254 4403 734 | Electrolytic 4700μF/25V | CE04W1E472MC(SMG) |
| R475 | 247 0010 929 | Carbon chip 15kohm 1/10W | RM73B-153J | C409 | 254 4261 921 | Electrolytic 100μF/50V | CE04W1H101M |
| R701,702 | 247 0009 901 | Carbon chip 4.7kohm 1/10W | RM73B-472J | C410 | 254 4260 948 | Electrolytic 1μF/50V | CE04W1H010M |
| R703,704 | 247 0012 969 | Carbon chip 150kohm 1/10W | RM73B-154J | C451 | 254 4260 880 | Electrolytic 10μF/50V | CE04W1H100M |
| R705,706 | 247 0011 986 | Carbon chip 68kohm 1/10W | RM73B-683J | C452 | 254 4254 925 | Electrolytic 33μF/16V | CE04W1C330M |
| R707,708 | 247 0004 922 | Carbon chip 47ohm 1/10W | RM73B-470J | C453 | 254 4250 945 | Electrolytic 330μF/6.3V | CE04W0J331M |
| R709,710 | 247 0005 992 | Carbon chip 240kohm 1/10W | RM73B-241J | C456 | 255 1265 936 | Film 0.01μF/50V | CC93M1H103J(B) |
| R711,712 | 247 0012 956 | Carbon chip 130kohm 1/10W | RM73B-134J | C459,460 | 253 1151 905 | Ceramic 4700μF/50V | CK45E2H472P |
| R713,714 | 247 0009 988 | Carbon chip 11kohm 1/10W | RM73B-113J | △C461 | | Metallized 0.1μF/50V | |
| R715,716 | 247 0003 949 | Carbon chip 220m 1/10W | RM73B-220J | C462 | 254 4254 938 | Electrolytic 47μF/16V | CE04W1C470M |
| R717,718 | 247 0005 905 | Carbon chip 100kohm 1/10W | RM73B-101J | C549 | 254 4252 927 | Electrolytic 47μF/10V | CE04W1A470M |
| R719,720 | 247 0012 927 | Carbon chip 100kohm 1/10W | RM73B-104J | C701,702 | 257 0003 988 | Ceramic chip 47pF/50V | CC73SL1H470J |
| CAPACITORS GROUP | | | | C703,704 | 257 0005 944 | Ceramic chip 220pF/50V | CC73SL1H221J |
| C101-108 | 257 0004 903 | Ceramic chip 58pF/50V | CC73SL1H560J | C705,706 | 254 4254 909 | Electrolytic 10μF/16V | CE04W1C100M |
| C109,110 | 253 1179 945 | Ceramic 220pF/50V | CK45B1H221KT | C709,710 | 254 4250 929 | Electrolytic 100μF/6.3V | CE04W0J101M |
| C111 | 257 0002 921 | Ceramic chip 10pF/50V | CC73SL1H100D | C711,712 | 255 4199 999 | Film 0.024μF/50V | CC02W1H243J(MRZ) |
| C112,113 | 257 0012 982 | Ceramic chip 0.022μF/50V | CK73F1H223Z | C713,714 | 255 1265 907 | Film 6800μpF/50V | CC93M1H682J(B) |
| C124,125 | 257 0012 982 | Ceramic chip 0.022μF/50V | CK73F1H223Z | C715,716 | 254 4254 909 | Electrolytic 10μF/16V | CE04W1C100M |
| C127 | 257 0012 982 | Ceramic chip 0.022μF/50V | CK73F1H223Z | C717,718 | 253 1181 904 | Ceramic 0.01μF/50V | CK45F1H103Z |
| C131-134 | 257 0004 903 | Ceramic chip 56pF/50V | CC73SL1H560J | C724 | 254 4260 948 | Electrolytic 1μF/50V | CE04W1H010M |
| C201-204 | 255 1265 907 | Film 6800pF/50V | CC93M1H682J(B) | C725 | 257 0012 982 | Ceramic chip 0.022μF/50V | CK73F1H223Z |
| C205,206 | 257 0006 985 | Ceramic chip 820pF/50V | CC73SL1H821J | C801,802 | 257 0016 982 | Ceramic chip 27pF/50V | CC73CH1H270J |
| C251-254 | 254 4258 918 | Electrolytic 10μF/35V | CE04W1V100M | C803-805 | 254 4250 916 | Electrolytic 47μF/6.3V | CE04W0J470M |
| △C257-258 | 254 6201 002 | Electrolytic 720μF/63V | CE04W1-7210C(D) | C807,808 | 257 0003 933 | Ceramic chip 30pF/50V | CC73SL1H300J |
| C259 | 253 1181 904 | Ceramic 0.01μF/50V | CK45F1H103Z | C809 | 257 0012 966 | Ceramic chip 0.01μF/50V | CK73F1H103Z |
| C307,308 | 257 0006 927 | Ceramic chip 470pF/50V | CC73SL1H471J | C810 | 254 4250 916 | Electrolytic 47μF/6.3V | CE04W0J470M |
| C311-314 | 253 4536 909 | Ceramic 10pF/50V | CC45SL1H100D | C811 | 257 0006 943 | Ceramic chip 560pF/50V | CC73SL1H561J |
| C323,324 | 254 4260 948 | Electrolytic 1μF/50V | CE04W1H010M | | | | |
| C325,326 | 255 1265 936 | Film 0.01μF/50V | CC93M1H103J(B) | | | | |

1U-2818 TUNER UNIT ASS'Y

| Ref. No. | Part No. | Part Name | Remarks | Ref. No. | Part No. | Part Name | Remarks | | | | |
|---------------------------|--------------|--------------------------|---------------------|--|--------------|--------------------------|-------------------|--|--|--|--|
| OTHERS PARTS GROUP | | | | | | | | | | | |
| CB29D | 205 0990 045 | 29P FFC connector base | | IC501 | 263 0891 001 | IC LA1265(S) | | | | | |
| CB6A,6C | 205 0918 001 | 6P bottom socket | | IC502 | 263 0439 007 | IC LA3401 | | | | | |
| CB6A | 205 0918 014 | 8P bottom socket | | IC503 | 263 0791 907 | IC LM7001M | | | | | |
| CB8B,8C | 205 0806 090 | 8P connector base (9115) | | IC504 | 263 0794 001 | IC NJM78M12FA(S) | | | | | |
| CN8C | 203 2377 001 | 2P DA-DA connector cord | | TR501 | 275 0074 902 | Transistor 2SK211(Y/GR) | | | | | |
| CN7A | 205 0653 078 | 7P VH connector base | | TR502 | 273 0438 908 | Transistor 2SC2413K (Q) | | | | | |
| L391,392 | 235 0104 001 | Inductor(1MHz) | | TR503 | 269 0157 905 | Transistor DTB123EK | Built in resistor | | | | |
| L701,702 | 235 9003 002 | FT choke coil | | TR504 | 269 0083 901 | Transistor DTA114EK | Built in resistor | | | | |
| RL451,452 | 214 0167 005 | Relay(G5Z-2A) | | TR505,506 | 269 0054 901 | Transistor DTC144EK | Built in resistor | | | | |
| RL453 | 214 0127 003 | Relay(RY-12W) | | TR507 | 271 0279 909 | Transistor 2SA1515(R) | | | | | |
| TH451 | 279 0034 087 | Posistor | | TR508 | 275 0075 901 | Transistor 2SK209(Y/GR) | | | | | |
| TP001,002 | 205 0190 030 | 3P NH Connector base | PTH9M04BB222TS2F333 | TR509 | 273 0403 904 | Transistor 2SC2712(Y/GR) | | | | | |
| XL601 | 399 0018 007 | Crystal | | 0501 | 276 0559 909 | Diode DAP20K | | | | | |
| XT801 | 399 0041 901 | Resonator | | RESISTORS GROUP (Not included carbon film ±5% 1/4W) | | | | | | | |
| | 205 0484 001 | 8P speaker terminal | | R001-016 | 247 0018 905 | Chip 30ohm 1/10W | RM73B-0R0K | | | | |
| | 203 0475 072 | 1P contact Ass'y | | R501 | 247 0004 906 | Chip 390ohm 1/10W | RM73B-380J | | | | |
| | 205 0472 013 | 8P speaker terminal | | R502 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J | | | | |
| | 204 6485 000 | 4P pin jack(S-GND) | | R503 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J | | | | |
| | 204 6486 008 | 6P pin jack(S-GND) | | R504 | 247 0009 927 | Chip 5.6kohm 1/10W | RM73B-562J | | | | |
| | | | | R505 | 247 0006 920 | Chip 330ohm 1/10W | RM73B-331J | | | | |
| | | | | R506 | 247 0009 801 | Chip 4.7kohm 1/10W | RM73B-472J | | | | |
| | | | | R507 | 247 0005 989 | Chip 220ohm 1/10W | RM73B-221J | | | | |
| | | | | R508,509 | 247 0006 920 | Chip 330ohm 1/10W | RM73B-331J | | | | |
| | | | | R510 | 247 0006 989 | Chip 560ohm 1/10W | RM73B-561J | | | | |
| | | | | R511 | 247 0012 927 | Chip 100kohm 1/10W | RM73B-104J | | | | |
| | | | | R512 | 247 0009 914 | Chip 5.1kohm 1/10W | RM73B-512J | | | | |
| | | | | R513 | 247 0005 935 | Chip 100ohm 1/10W | RM73B-101J | | | | |
| | | | | R514 | 247 0008 966 | Chip 3.9kohm 1/10W | RM73B-382J | | | | |
| | | | | R515 | 247 0006 946 | Chip 390ohm 1/10W | RM73B-391J | | | | |
| | | | | R516 | 247 0005 947 | Chip 150ohm 1/0W | RM73B-151J | | | | |
| | | | | R517 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J | | | | |
| | | | | R518 | 247 0018 905 | Chip 0ohm 1/10W | RM73B-0R0K | | | | |
| | | | | R519 | 247 0009 901 | Chip 4.7kohm 1/10W | RM73B-472J | | | | |
| | | | | R520 | 247 0004 988 | Chip 820hm 1/10W | RM73B-820J | | | | |
| | | | | R521 | 247 0008 944 | Chip 2.7kohm 1/10W | RM73B-272J | | | | |
| | | | | R522 | 247 0011 902 | Chip 33kohm 1/10W | RM73B-333J | | | | |
| | | | | R523-525 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J | | | | |
| | | | | R526 | 247 0008 957 | Chip 3kohm 1/10W | RM73B-302J | | | | |
| | | | | R527 | 247 0011 986 | Chip 68kohm 1/10W | RM73B-683J | | | | |
| | | | | R528 | 247 0009 955 | Chip 7.5kohm 1/10W | RM73B-752J | | | | |
| | | | | R529 | 247 0008 960 | Chip 3.3kohm 1/10W | RM73B-332J | | | | |
| | | | | R530 | 247 0012 927 | Chip 100kohm 1/10W | RM73B-104J | | | | |
| | | | | R532 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J | | | | |
| | | | | R533 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J | | | | |
| | | | | R534 | 247 0011 915 | Chip 36kohm 1/10W | RM73B-363J | | | | |

| Ref. No. | Part No. | Part Name | Remarks | Ref. No. | Part No. | Part Name | Remarks |
|-------------------------|--------------|---|---------------|-----------|--------------|----------------------------|------------|
| CAPACITORS GROUP | | | | | | | |
| R535 | 247 0010 974 | Chip 24kohm 1/10W | RM73B-243J | CF501,502 | 261 0064 007 | Ceramic filter | SFT10.7MS2 |
| R536 | 247 0012 985 | Chip 180kohm 1/10W | RM73B-184J | CF504 | 261 0101 009 | Ceramic filter | BFU450C4N |
| R537 | 247 0012 988 | Chip 200kohm 1/10W | RM73B-204J | CNBB,8C | 205 0805 091 | 8P connector socket | |
| R538 | 247 0012 985 | Chip 180kohm 1/10W | RM73B-184J | FE501 | 216 0065 006 | Front end | |
| R539 | 247 0012 988 | Chip 200kohm 1/10W | RM73B-204J | T501 | 231 1913 004 | MW antenna OSC coil | |
| R540,541 | 247 0008 902 | Chip 1.8kohm 1/10W | RM73B-182J | T502 | 231 2089 003 | FM DET trans | |
| R542,543 | 247 0009 901 | Chip 4.7kohm 1/10W | RM73B-472J | T503 | 231 3604 008 | AM IFT | |
| R544 | 247 1007 988 | Chip 1.5kohm 1/8W | RM73B2B152J | T504 | 228 9010 009 | Antibirdie filter | |
| R545 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J | T505,506 | 232 0065 004 | LPF | |
| R546 | 247 0012 927 | Chip 100kohm 1/10W | RM73B-104J | XL502 | 261 0103 007 | Resonator | CSB466F11 |
| | | | | | | | |
| C501-506 | 257 0012 968 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | XL503 | 369 0075 003 | Crystal | 7.2MHz |
| C507 | 257 0002 947 | Chip(Ceramic) 12pF/50V | CC73SL1H120J | | 205 0847 004 | 3P antenna terminal(PAL/F) | |
| C508 | 254 4254 909 | Electrolytic 10 μ F/16V | CE04W1C100M | | 203 0526 031 | 1P Contact Ass'y | |
| C509 | 257 0004 961 | Chip(Ceramic) 100pF/50V | CC73SL1H101J | | | | |
| C510 | 257 0012 968 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C511 | 254 4260 906 | Electrolytic 0.1 μ F/50V | CE04W1H01R1M | | | | |
| C513 | 254 3056 917 | Electrolytic 1 μ F/50V (Non-polar) | CE04D1H010MBP | | | | |
| C514 | 257 0012 982 | Chip(Ceramic) 0.022 μ F/50V | CK73F1H223Z | | | | |
| C515,516 | 257 0002 976 | Chip(Ceramic) 16pF/50V | CC73SL1H160J | | | | |
| C517 | 254 4254 938 | Electrolytic 47 μ F/16V | CE04W1C470M | | | | |
| C518,519 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C520 | 254 4260 922 | Electrolytic 0.33 μ F/50V | CE04W1H3R3M | | | | |
| C521 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C522 | 254 4256 936 | Electrolytic 47 μ F/25V | CE04W1E470M | | | | |
| C523 | 254 4260 948 | Electrolytic 1 μ F/50V | CE04W1H010M | | | | |
| C524 | 254 4260 964 | Electrolytic 3.3 μ F/50V | CE04W1H3R9M | | | | |
| C525 | 257 0012 982 | Chip(Ceramic) 0.022 μ F/50V | CK73F1H223Z | | | | |
| C526 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C527 | 254 4260 948 | Electrolytic 1 μ F/50V | CE04W1H010M | | | | |
| C528 | 254 4254 909 | Electrolytic 10 μ F/16V | CE04W1C100M | | | | |
| C529 | 257 1013 951 | Chip(Ceramic) 0.047 μ F/25V | CK73F1E473J | | | | |
| C530 | 254 4254 912 | Electrolytic 22 μ F/16V | CE04W1C220M | | | | |
| C531 | 257 0004 961 | Chip(Ceramic) 100pF/50V | CC73SL1H101J | | | | |
| C532 | 254 4260 948 | Electrolytic 1 μ F/50V | CE04W1H010M | | | | |
| C533 | 254 4260 919 | Electrolytic 0.22 μ F/50V | CE04W1H22M | | | | |
| C534 | 254 4260 948 | Electrolytic 1 μ F/50V | CE04W1H010M | | | | |
| C535,536 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C537 | 254 4254 912 | Electrolytic 22 μ F/16V | CE04W1C220M | | | | |
| C538 | 254 4254 938 | Electrolytic 47 μ F/16V | CE04W1C470M | | | | |
| C539,540 | 257 0005 960 | Chip(Ceramic) 270pF/50V | CC73SL1H271J | | | | |
| C541 | 254 4280 951 | Electrolytic 2.2 μ F/50V | CE04W1H2R2M | | | | |
| C545 | 253 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C548 | 254 4260 951 | Electrolytic 2.2 μ F/50V | CE04W1H2R2M | | | | |
| C550,551 | 254 4260 948 | Electrolytic 1 μ F/50V | CE04W1H010M | | | | |
| C553,554 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |
| C555 | 256 1034 937 | Metallized 0.047 μ F/50V | CP93A1H473J | | | | |
| C561 | 257 0012 966 | Chip(Ceramic) 0.01 μ F/50V | CK73F1H103Z | | | | |

KU-9328 DISPLAY UNIT ASS'Y

| Ref. No. | Part No. | Part Name | Remarks |
|--|--------------|---------------------|-------------------|
| SEMICONDUCTORS GROUP | | | |
| IC001 | 282 2249 001 | IC TMP87CM71F-6348 | |
| IC002 | 263 0905 900 | IC BA6208F | |
| ZD651 | 276 0654 901 | Zener diode DTZ8.2B | |
| RESISTORS GROUP (Not Included carbon film ±5% 1/4W) | | | |
| VR301 | 211 0841 018 | Variable 100kohm | V14P2PFW104K |
| VR302 | 211 0831 002 | Variable 100kohm | V1620/25FB104(MG) |
| VR303 | 211 0842 017 | Variable 250kohm | V14P29FC254K |
| VR304 | 211 0843 016 | Variable 50kohm | V14P29FC503K |
| VR307 | 211 9131 004 | Variable 100kohm | V14P29FB104K |
| R301,302 | 247 0011 928 | Chip 39kohm 1/10W | RM73B-383J |
| R303,304 | 247 0009 943 | Chip 6.8kohm 1/10W | RM73B-682J |
| R361,362 | 247 0011 973 | Chip 62kohm 1/10W | RM73B-623J |
| R363,364 | 247 0009 988 | Chip 11kohm 1/10W | RM73B-113J |
| R365,366 | 247 0008 931 | Chip 2.4kohm 1/10W | RM73B-242J |
| R367,368 | 247 0013 984 | Chip 47kohm 1/10W | RM73B-474J |
| R369,370 | 247 0010 945 | Chip 18kohm 1/10W | RM73B-183J |
| R371,372 | 247 0009 943 | Chip 6.8kohm 1/10W | RM73B-682J |
| R373,374 | 247 0006 917 | Chip 300ohm 1/10W | RM73B-301J |
| R375,376 | 247 0011 944 | Chip 47kohm 1/10W | RM73B-473J |
| R379,380 | 247 0009 901 | Chip 4.7kohm 1/10W | RM73B-472J |
| R651 | 247 1009 900 | Chip 4.7kohm 1/8W | RM73B2B472J |
| R652-657 | 247 0006 985 | Chip 10kohm 1/10W | RM73B-103J |
| R665 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R666 | 247 0005 978 | Chip 200ohm 1/10W | RM73B-201J |
| R667 | 247 0006 917 | Chip 300ohm 1/10W | RM73B-301J |
| R668 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R669 | 247 0005 978 | Chip 200ohm 1/10W | RM73B-201J |
| R670 | 247 0006 917 | Chip 300ohm 1/10W | RM73B-301J |
| R671 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R672 | 247 0005 978 | Chip 200ohm 1/10W | RM73B-201J |
| R673 | 247 0006 917 | Chip 300ohm 1/10W | RM73B-301J |
| R674 | 247 0006 975 | Chip 510ohm 1/10W | RM73B-511J |
| R675 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R676 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R677 | 247 0005 978 | Chip 200ohm 1/10W | RM73B-201J |
| R678 | 247 0006 917 | Chip 300ohm 1/10W | RM73B-301J |
| R679 | 247 0006 975 | Chip 510ohm 1/10W | RM73B-511J |
| R680 | 247 0007 945 | Chip 1kohm 1/10W | RM73B-102J |
| R681 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J |
| R682,683 | 247 0009 985 | Chip 10kohm 1/10W | RM73B-103J |
| R685 | 247 0008 957 | Chip 30kohm 1/10W | RM73B-302J |

1U-2915 POWER UNIT ASS'Y

| Ref. No. | Part No. | Part Name | Remarks |
|---------------------------|--------------|---------------------------|-------------------|
| CAPACITORS GROUP | | | |
| C300 | 257 0012 968 | Chip(Ceramic) 0.01μF/50V | CK73F1H103Z |
| C301,302 | 257 0006 943 | Ceramic 560pF/50V | CC73SL1H561J |
| C303,304 | 255 1265 978 | Film 0.022μF/50V | CC93MH1223J(B) |
| C361,362 | 257 0004 961 | Ceramic 100pF/50V | CC73SL1H101J |
| C363,364 | 255 1265 981 | Film 0.027μF/50V | CC93MH1273J(B) |
| C365,366 | 256 1034 982 | Metalized 0.12μF/50V | CF73A1H124J |
| C367,368 | 255 1284 924 | Film 1500pF/50V | CC93MH1152J(B) |
| C369,370 | 255 1265 936 | Film 0.01μF/50V | CC93MH1H103J(B) |
| OTHERS PARTS GROUP | | | |
| CK45s-1E103K | | | |
| △C411 | 263 8014 702 | Ceramic 0.01μF/400V AC | |
| △PA2A | 203 2349 003 | 2P AC outlet | Except to U.K. |
| △CN3A | 205 0581 001 | 2P VH connector base | |
| △F401 | 206 1075 000 | Fuse 2.5A | |
| △F402 | 206 1075 001 | Fuse(A) | Except to U.K. |
| △SW401 | 212 1031 008 | Push switch(TV-S) | |
| CK73F1H103Z | | | |
| C651 | 257 0012 968 | Chip(Ceramic) 0.01μF/50V | CK73F1H103Z |
| C652 | 254 4300 953 | Electrolytic 100μF/6.3V | CE04WU1H101M(SRE) |
| C653 | 257 0012 968 | Chip(Ceramic) 0.01μF/50V | CK73F1H103Z |
| C655 | 254 4299 964 | Electrolytic 47μF/16V | CE04W1C470M(SRE) |
| C657 | 257 0012 982 | Chip(Ceramic) 0.022μF/50V | CK73F1H223Z |
| C666 | 257 0004 961 | Ceramic 100pF/50V | CC73SL1H101J |
| OTHERS PARTS GROUP | | | |
| CB80 | 205 0919 028 | 8P JQ socket(Side) | |
| CN29D | 205 0980 045 | 2P FFC connector base | |
| CN6A,6C | 205 0917 002 | 6P bottom plug | |
| CN8A | 205 0917 015 | 6P bottom plug | |
| CN8D | 205 0408 045 | 8P JQ socket | |
| FL401 | 393 4155 002 | FL tube | FIP14AM7R |
| JK201 | 204 6354 017 | Head phone jack | Black model |
| JK201 | 204 6355 003 | Head phone jack | Gold model |
| RM601 | 499 0150 008 | Remote sensor | SBX1610-52 |
| SW302,303 | 212 1140 009 | Push switch(ESB6440) | |
| SW601-617 | 212 5504 910 | Tact switch | |
| XL651 | 399 0261 901 | Resonator | DCRH4.00M |
| | 414 0740 006 | Shield plate | |

PRINTED WIRING BOARD PATTERNS

1

2

4

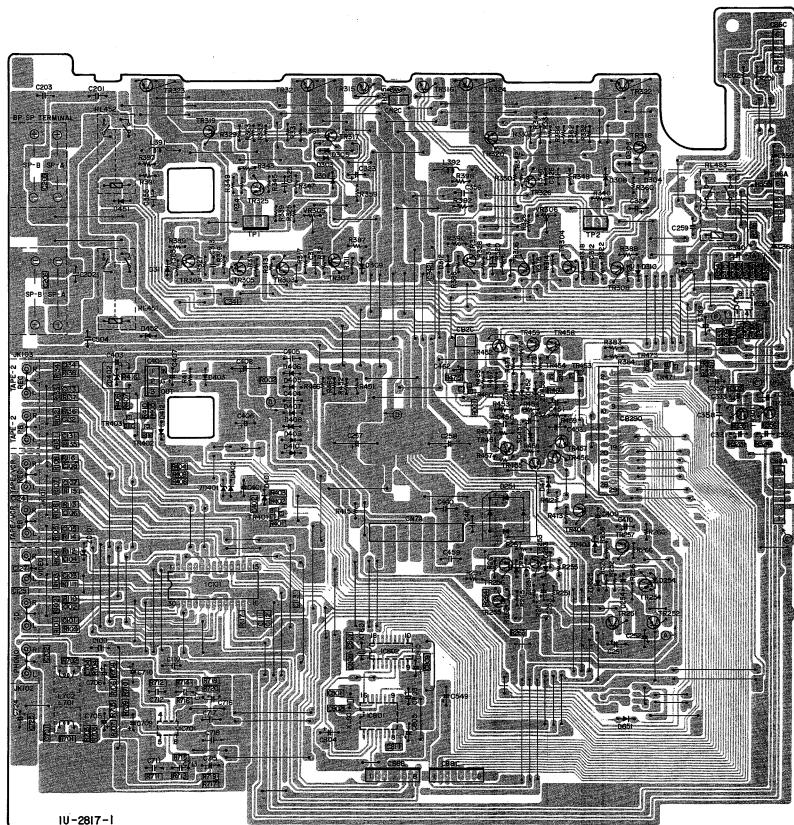
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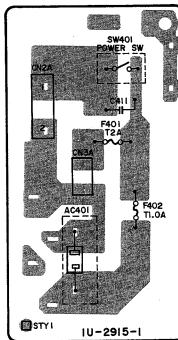
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8

1U-2817 MAIN UNIT ASS'Y

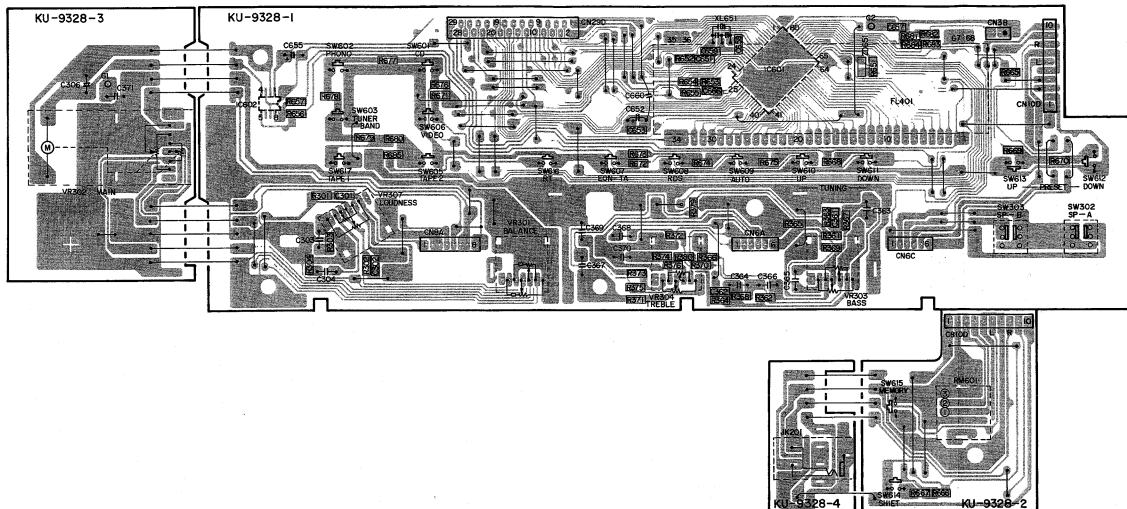


1U-2915 POWER UNIT ASS'Y

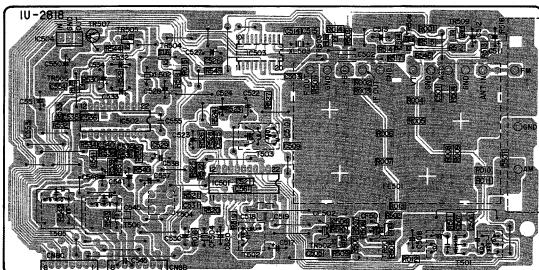


1 2 3 4 5 6 7

KU-9328 DISPLAY UNIT ASS'Y



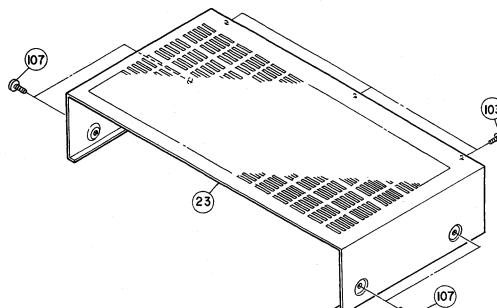
1U-2818 TUNER UNIT ASS'Y



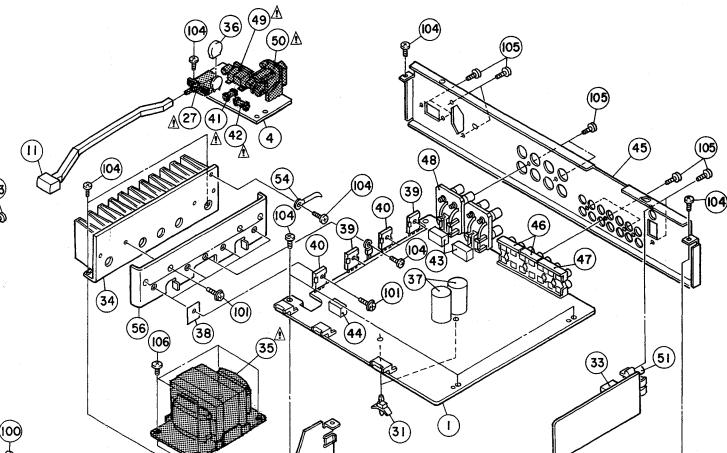
EXPLODED VIEW OF CHASSIS AND CABINET

1 2 3 4 5 6 7 8

A



B



PARTS LIST EXPLODED VIEW

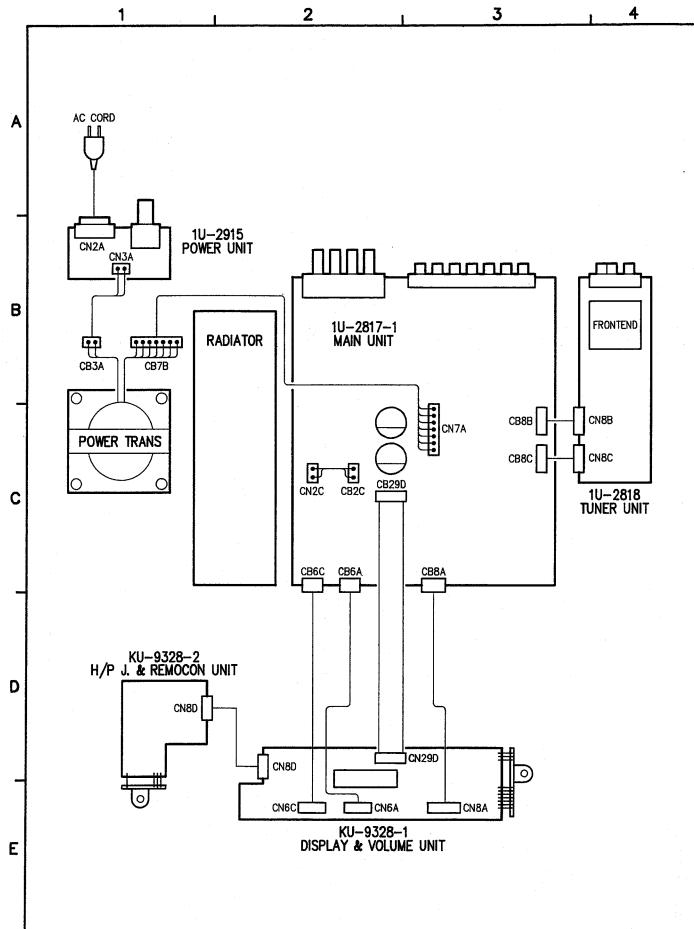
* Gold model = Except to U.K.

| Ref. No. | Part No. | Part Name | Remarks | Q'ty |
|----------|-------------------|-----------------------|--------------|------|
| ④ 1 | 1U-2817 E | Main unit Assy | Europe model | 1 |
| | — | — | | |
| ④ 1 | 1U-2817 F | Main unit Assy | U.K. model | 1 |
| | — | — | | |
| ④ 2 | 1U-2818 | Tuner unit Assy | | 1 |
| ④ 3 | KU-9328 | Display unit Assy | | 1 |
| ④ 3-1 | — | Display & Volume unit | | |
| ④ 3-2 | — | H/P J & Remco unit | | |
| 4 | 1U-2915 | Power unit Assy | | 1 |
| ④ 5 | 144 2467 002 | Front panel | Black model | 1 |
| ④ 5 | 144 2467 015 | Front panel | Gold model | 1 |
| ④ 6-1 | 146 1602 004 | Inner panel Assy | Black model | 1 |
| ④ 6-2 | 143 9167 001 | (Window) | | |
| ④ 6-1 | 146 1602 017 | Inner panel Assy | Gold model | 1 |
| ④ 6-2 | 143 9167 001 | (Window) | | |
| 7 | 113 9325 011 | Series button (A) | Black model | 1 |
| 7 | 113 9325 011 | Series button (A) | Gold model | 1 |
| 8 | 113 9326 007 | Series button (B) | Black model | 1 |
| 8 | 113 9326 010 | Series button (B) | Gold model | 1 |
| 9 | 113 9324 229 | Function button | Black model | 1 |
| 9 | 113 9324 232 | Function button | Gold model | 1 |
| 10 | 113 9323 000 | Push button (SP) | Black model | 2 |
| 10 | 113 9323 013 | Push button (SP) | Gold model | 2 |
| 11 | 113 1721 105 | Power button Assy | Black model | 1 |
| 11 | 113 1721 011 | Power button Assy | Gold model | 1 |
| 12 | 112 0739 014 | *Knob (Manu) | Black model | 4 |
| 12 | 112 0739 014 | *Knob (Manu) | Gold model | 4 |
| 13 | 112 0737 029 | *Volume knob | Black model | 1 |
| 13 | 112 0737 032 | *Volume knob | Gold model | 1 |
| 14 | 204 8354 017 | Head phone jack | Black model | 1 |
| 14 | 204 8355 003 | Head phone jack | Gold model | 1 |
| 15 | 212 1140 009 | Push switch(ES86440) | SW3002.303 | 2 |
| 16 | 211 9131 004 | Variable resistor | VR307 | 1 |
| 17 | 211 0642 017 | Variable resistor | VR303 | 1 |
| 18 | 211 0843 016 | Variable resistor | VR304 | 1 |
| 19 | 211 0841 018 | Variable resistor | VR301 | 1 |
| 20 | 211 0831 002 | Variable resistor | VR302 | 1 |
| ④ 23 | 102 0571 013 | Top cover | Gold model | 1 |
| ④ 23 | 102 0571 000 | Top cover | Black model | 1 |
| ④ 24 | 414 0740 008 | Shield plate | | 1 |
| 25 | 499 0150 003 | Remote sensor | SBX1610-52 | 1 |
| 26 | 393 4155 002 | Fl. tube | PIP14AM7R | 1 |
| ④ 27 | 212 1031 008 | Power switch (TV-S) | | 1 |
| 28 | 212 5604 910 | Tact switch | | 16 |
| | SW601-603,605-617 | | | |
| ④ 29 | 411 1323 300 | Chassis | | 1 |
| ④ 30 | 104 0224 101 | Foot Assy | | 4 |
| ④ 31 | 449 0033 049 | Locking card spacer | | 2 |
| 33 | 216 0065 006 | Front end | | 1 |
| ④ 34 | 417 0529 006 | Power radiator | | 1 |
| ④ 35 | 223 6164 002 | Power Transformer | | 1 |

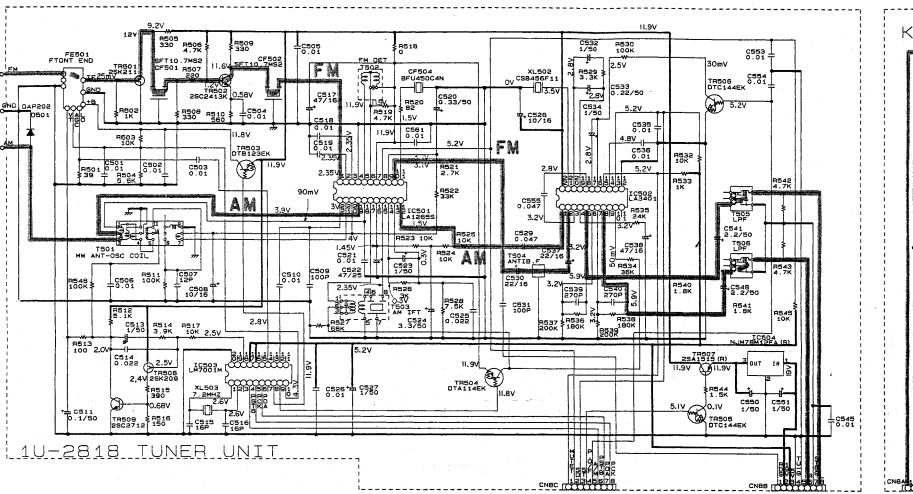
PACKING & ACCESSORIES

| Ref. No. | Part No. | Part Name | Remarks | Q'ty |
|--------------|------------------------|----------------------------|----------------|------|
| ④ 36 | 415 0299 000 | Capacitor cover | C257,258 | 1 |
| | 254 6201 002 | Electrolytic capacitor | | 2 |
| 38 | 415 0234 007 | Insulating sheet | | 4 |
| 39 | 271 0240 006 | Transistor 2SA1491(OPN) | TR223,324 | 2 |
| 40 | 273 0389 002 | Transistor 2SC3855(OPN) | TR221,322 | 2 |
| ④ 41 | 206 1075 000 | Fuse (20A) | F401 | 1 |
| ④ 42 | 206 1075 001 | Fuse (1A) | Except to U.K. | 1 |
| 43 | 214 0167 005 | Relay(G5Z-2A) | RL451,452 | 2 |
| 44 | 214 0127 003 | Relay(RY-12W) | RL453 | 1 |
| ④ 45 | 105 1187 104 | :Rear panel | Europe model | 1 |
| ④ 45 | 105 1187 117 | :Rear panel | U.K. model | 1 |
| 46 | 204 8485 009 | 4P pin jack(S-GND) | | 2 |
| 47 | 204 8486 008 | 8P pin jack(S-GND) | | 1 |
| 48 | 205 0484 001 | 8P speaker terminal | Europe model | 1 |
| 48 | 205 0472 013 | 8P speaker terminal | U.K. model | 1 |
| ④ 49 | 203 2349 009 | 2P inlet | ON2A | 1 |
| ④ 50 | 203 3961 004 | 1P AC outlet | Except to U.K. | 1 |
| ④ 51 | 205 0847 004 | 3P antenna terminal(PAL/F) | | 1 |
| 53 | 009 0134 009 | 2P FFC cable | | 1 |
| 54 | 445 0048 003 | Cord holder(L-76) | | 1 |
| 56 | 417 0520 102 | Sub radiator | | 1 |
| SCREWS | | | | |
| 100 | 477 0262 006 | Special screw | | 1 |
| 101 | 473 8007 009 | Cup screw 3x12 | | 8 |
| 102 | 473 7500 044 | Screw 3x8 (P) BK | | 9 |
| 103 | 473 7015 018 | Screw 3x8 (S) BK | | 5 |
| 104 | 473 7002 018 | Screw 3x8 (S) | | 12 |
| 105 | 477 8057 004 | Fixing screw 3x10 BK | | 11 |
| 106 | 473 7004 016 | Screw 4x6 (S) | | 4 |
| 107 | 473 7007 013 | Screw 4x10 (S) BK | Black model | 4 |
| 107 | 473 4801 005 | Screw 4x8 | Gold model | 4 |
| 505 0283 018 | -Envelope | | | 1 |
| 511 2840 001 | Operating instructions | | | 1 |
| 231 1914 003 | AM loop antenna | | | 1 |
| 395 0023 008 | *FM antenna Assy | | | 1 |
| 399 0242 001 | Remote control unit | RC-174 | | 1 |
| 206 2108 003 | *AC connectorWith plug | Europe model | | 1 |
| 206 2110 001 | *AC cordWith connector | U.K. model | | 1 |
| 505 0131 050 | Cabinet cover | | | 1 |
| 503 1140 109 | :Cushion | | | 2 |
| 501 1871 045 | Carton case | | | 1 |

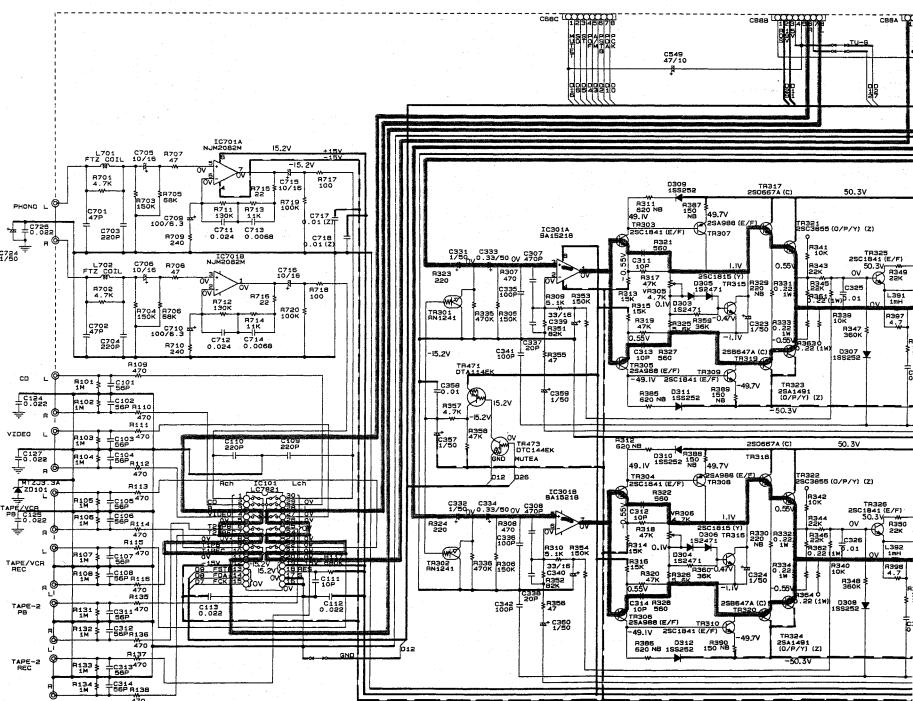
WIRING DIAGRAM



SCHEMATIC DIAGRAM



1U-2818 TUNER UNIT



WARNING:

CAUTION:

CAUTION:
Before returning the unit to
current check or (2) a line to
exceeds 0.5 milliamps, or if
needle is less than 240 ohms.

WARNING:

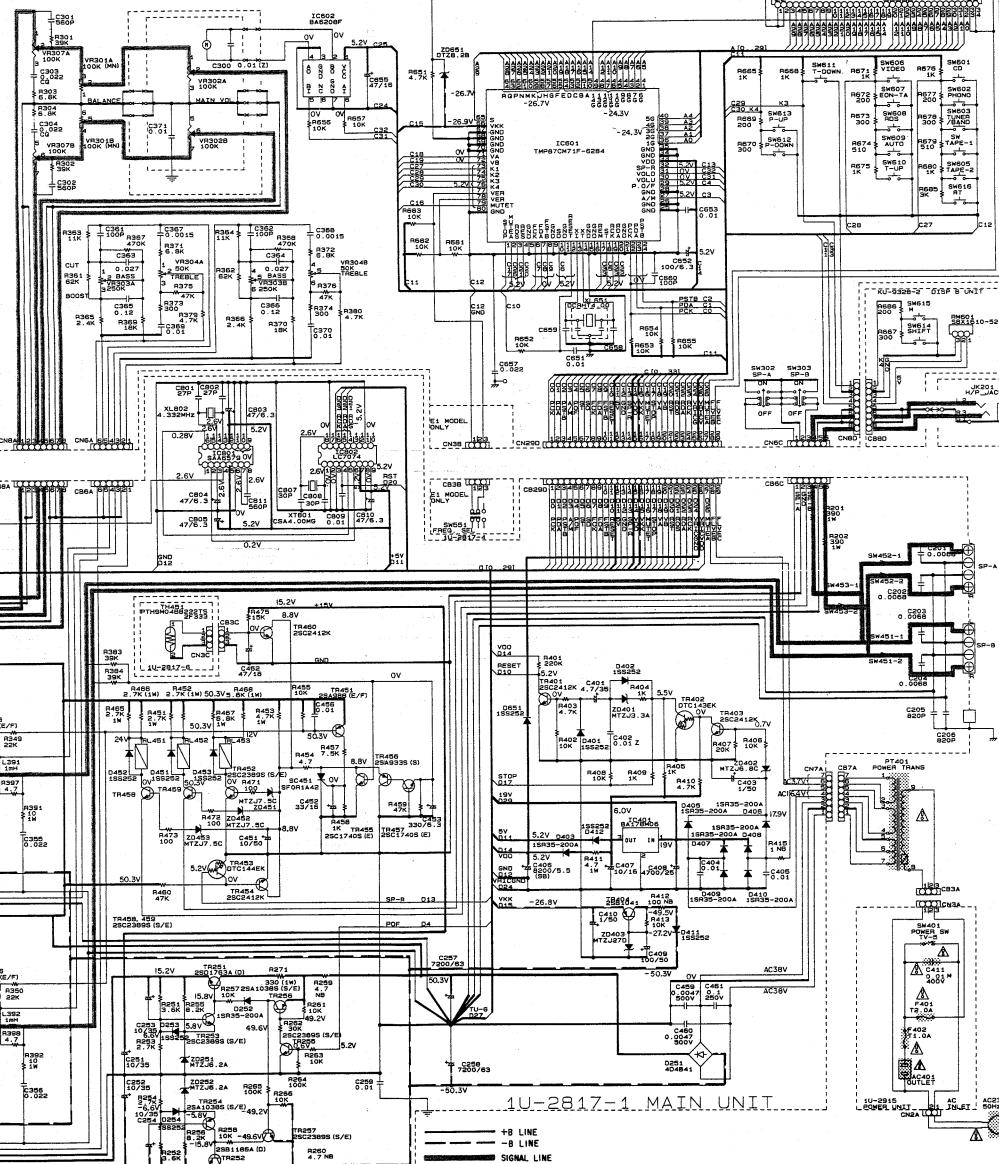
WARNING:
DO NOT return the unit to ti

NOTES:

Circuit and parts are sut

6 7 8 9 10 11

KU-9328-1 DISPLAY UNIT



NING:
marked with this symbol have critical characteristics.

ONLY replacement parts recommended by the manufacturer.

PTION:
When returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power

WARNING: ~~DO NOT~~ return the unit to the customer until the problem is located and corrected.

ES: Unit and parts are subject to change without prior notice.

NOTES
ALL RESISTANCE VALUES IN OHM. $k=1,000$ OHM,

M=1,000,000 OHM

ALL CAPACITANCE VALUES IN MICRO FARAD.
P-MICRO-MICRO FARAD

P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO

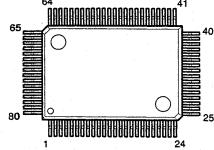
SIGNAL INPUT CONDITION.

CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT
PRIOR NOTICE.

PRIOR NOTICE.

● IC's

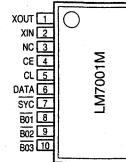
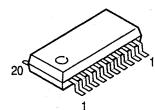
TMP87CM71F-6348 (IC601)



TMP87CM71F Port Allocation Table

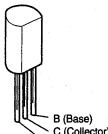
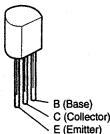
| No. | Symbol | IO | Logic | Initial Setting | Function |
|-----|----------|----|--------|-----------------|--|
| 1 | STOP | I | — | — | Power down detection (V _{DD} = 0 power down). |
| 2 | MUTE (A) | I | — | — | — |
| 3 | RDS | I | — | — | RDS data input (V _{DD} = MUTE). |
| 4 | REF | O | H | — | LC7201 reset output. |
| 5 | GND | I | — | — | — |
| 6 | PCK | O | Serial | L | Function control output (LC7201) for P-Clock. |
| 7 | FDA | O | Serial | L | Function control output (LC7201) for F-DATA. |
| 8 | FSTB | O | H | — | Function control output (LC7201) for F-STB. |
| 9 | SD | I | — | — | SD card data input. |
| 10 | SD | I | L | — | Turned signal input (V _{DD} = 0 turned off). |
| 11 | GND | I | — | — | Not used. |
| 12 | REF | I | — | — | Not used. |
| 13 | XIN | I | — | — | Clockin circuit (4MHz). |
| 14 | XOUT | I | — | — | Clockout circuit (4MHz). |
| 15 | VDD | PW | — | — | GND |
| 16 | GND | I | — | — | GND |
| 17 | REM | I | L | — | Remote control signal input. |
| 18 | ST | I | L | — | Steerer signal input (V _{DD} = 0 stereo). |
| 19 | RCK | I | Serial | — | RDS data (clock) input. |
| 20 | DATA | I | Serial | — | RDS data (data) input. |
| 21 | GND | I | — | — | Not used. |
| 22 | PCK | O | Serial | L | LC7201 control output for PLL-CK (CLL). |
| 23 | PSTB | O | Serial | L | LC7201 control output for PLL-DATA (DATA). |
| 24 | PSTB | O | Serial | L | LC7201 control output for PLL-STB (CE). |
| 25 | GND | I | — | — | GND |
| 26 | GND | O | — | — | GND |
| 27 | TA | I | — | — | AUTOMATICAL control. |
| 28 | GND | I | — | — | Not used. |
| 29 | P OFF | O | H | — | Power control output (V _{DD} = 0). |
| 30 | VR UP | O | H | — | Power volume control output (V _{DD} = 0 H ₁). |
| 31 | VR DOWN | O | H | — | Power volume control output (V _{DD} = 0 H ₂). |
| 32 | SPR | O | H | — | Speaker control output (V _{DD} = 0 H ₃). |
| 33 | VDD | PW | — | — | +5V |
| 34 | GND | I | — | — | GND |
| 35 | GND | I | — | — | GND |
| 36 | 1G | O | — | — | PL tube control output for 1G. |
| 37 | 2G | O | — | — | PL tube control output for 2G. |
| 38 | 3G | O | — | — | PL tube control output for 3G. |
| 39 | 4G | O | — | — | PL tube control output for 4G. |

LM7001 (IC503)

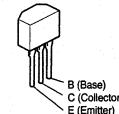


● TRANSISTORS

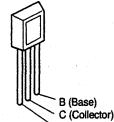
2SA988(E/F)
2SA1515(R)
2SC1815(Y)
2SC1841(E/F)



2SB833(S)
2SA1038S(S/E)
2SC1740S(E)
2SC2389S(S/E)



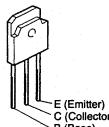
2SB1328(P)
2SD2004(P)



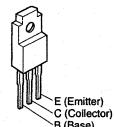
Digital Transistor (Built in Resistors)



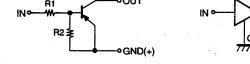
2SA1491 (O/P/Y) (TR323,324)
2SC3855 (O/P/Y) (TR321,322)



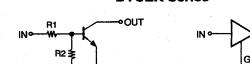
2SB1186A (D)
2SD1763A (D)



DTA - DTBEK Series



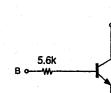
DTCEK Series



RN-1241(A/B)

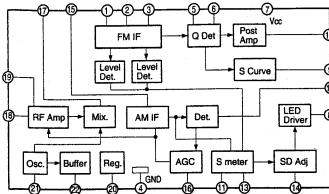
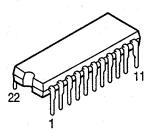


RN-1241

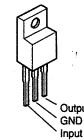




LA1265 (S)
(IC501)

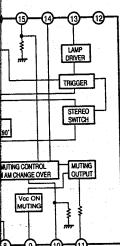
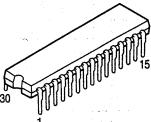
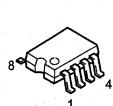


NJM78M12FA (IC504)
BA178M06 (IC401)



LC7821 (IC101)

BA6208F (IC602)



EK Series



| R1 | R2 |
|--------|---------|
| 10kohm | 10kohm |
| 2kohm | 2.2kohm |

2SK209 (Y/GR)



2SA1037 (S/R)
2SC2412 (S)
2SC2413K (Q)
2SC2712 (Y/GR)
DTB123EK



1: Drain
2: Source
3: Gate

1: Emitter
2: Base
3: Collector

● DIODES (included LED)

1SS252

1S2471

MTZJ3.3A
MTZJ7.5C
MTZJ6.2A
MTZJ27D
MTZJ6.8C

4D4B42

SF0R1A42

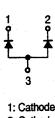
1SR35-200 (A)



DAP202K
(Chip)



DAP202K



DTZ8.2B



2SK211 (Y/RG)



1: Gate
2: Drain
3: Source

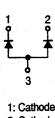
1SR35-200 (A)



DAP202K
(Chip)



DAP202K



DTZ8.2B



SBX1610-52 (Remote Control Sensor)

